

METHODS AND APPARATUS FOR COOLING GAS
TURBINE NOZZLES

ABSTRACT OF THE DISCLOSURE

A method for assembling a turbine nozzle for a gas turbine engine facilitates improving cooling efficiency of the turbine nozzle. The method includes providing a hollow doublet including a leading airfoil and a trailing airfoil coupled by at least one platform, wherein each airfoil includes a first sidewall and a second sidewall that extend between a respective leading and trailing edge. The method also includes inserting an insert into at least one of the airfoils, wherein the insert includes a first sidewall including a first plurality of cooling openings that extending therethrough, and a second sidewall including a second plurality of cooling openings extending therethrough, and wherein the first plurality of cooling openings facilitate more cooling of the airfoil than the second plurality of cooling openings.